TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

August 9, 2021
Revised January 11, 2022
Project No. T-7250-2-1

Mr. Zak Korsgaard
Kelkari One Development, LLC
411 – 1st Avenue South, Suite 650
Seattle, Washington 98104

Subject: Final Report
Earthwork Observation Summary
Kelkari Phase II
Issaquah, Washington

Reference:
1. Field Reports, prepared by Terra Associates, Inc., dated July 9, 2019 through August 5, 2021
2. Permit Numbers BLDG18-00152, BLDG18-00149, BLDG18-00151, BLDG18-00042, BLDG18-00150

Dear Mr. Korsgaard:

As requested, representatives of Terra Associates, Inc. have been providing geotechnical engineering observation services for the subject project. We began our work July 9, 2019, and as of August 5, 2021, we have completed our observations. The purpose of our work was to verify geotechnical elements of the construction were completed in accordance with approved construction drawings and recommendations presented by our onsite personnel. Our services included geotechnical observation of the following:

- Observation of site stripping.
- Observation and compaction testing of onsite and offsite utility trench backfill.
- Observation and compaction testing of lot fill.
- Observation of temporary shoring installation.
- Observation of permanent soldier pile wall installation.
- Observation and testing of permanent tieback installation.
- Observation and verification of suitable wall foundation subgrade for Keystone and Cast-In-Place walls.
- Observation and verification of Keystone wall construction, including drainage and reinforcement.
- Observation and compaction testing of wall backfill.

- Observation of detention tank excavation.
- Observation and compaction testing of detention tank backfill.
- Observation of foundation drainage installation.
- Observation and verification of overexcavation of unsuitable material.
- Subgrade for support of building foundations.
- Subgrade for support of building slab-on-grade.
- Subgrade for support of curb and gutter.
- Subgrade for support of roadways.

Summaries of our observations and testing are provided in the referenced field reports that were prepared following each site visit. Copies of these field reports were provided to your representative, the City of Issaquah, and the contractor. The field memos are attached to this letter.

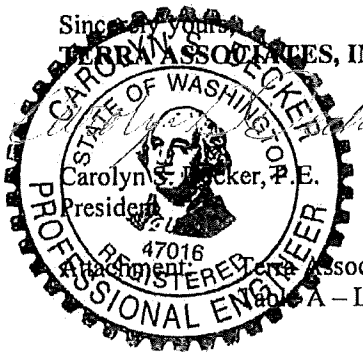
Building foundation subgrades consisted of dense, sand, silty sand, and silty sand with gravel soils and were suitable for an allowable bearing capacity of 2,500 pounds per square foot (psf).

Compaction tests were conducted at the site when lot structural fill, utility trench backfill, wall backfill, and site structural fill were placed and compacted. Tests were performed in accordance with ASTM Test Designation D-6938 (Nuclear Gauge Method). Compaction control was based on the soil's maximum dry density and optimum moisture content as determined by ASTM Test Designation D-1557 (Modified Proctor). Results of our compaction testing indicated structural fill placed to establish lot and site grades, along with utility trench and wall backfill was compacted to project specifications in the areas tested. Observation of pavement, curb, and sidewalk noted the subgrades were firm and stable prior to paving or concrete placement.

Based on the results of our observation and testing, it is our opinion that the geotechnical engineering elements of project construction were completed in accordance with our recommendations and the approved grading plans approved by the City of Issaquah.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.



1-11-2022

Carolyn S. Decker, P.E.
President

Attachment: Terra Associates, Inc. Field Memos 1 through 229
Table A – Laboratory Maximum Dry Density Test Data